

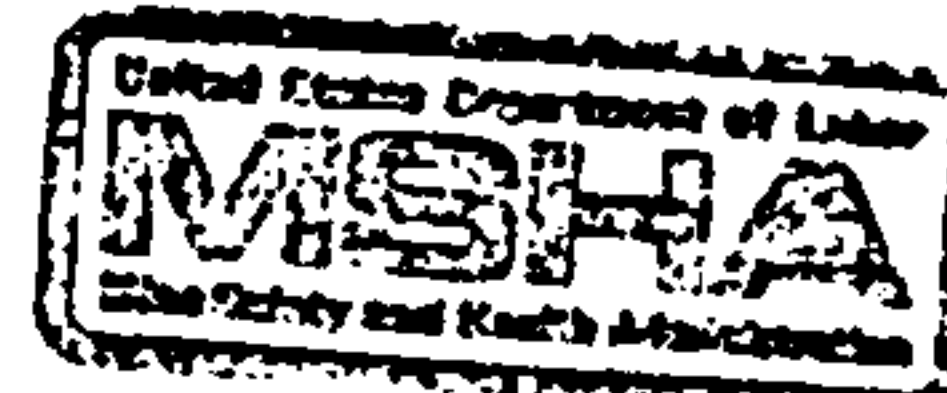
cc:

Tommy Hooker

Harlan FO
Barbourville FO

Jellico FO

Jacksboro FO



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Barbourville, Ky.
Subdistrict Office

UNITED STATES
DEPARTMENT OF LABOR
MINE SAFETY AND HEALTH ADMINISTRATION

DISTRICT 7

ACCIDENT INVESTIGATION REPORT
(UNDERGROUND COAL MINE)
NON-FATAL COAL OUTBURST ACCIDENT
NO. 37 MINE (I.D. NO. 15-04670)
ARCH OF KENTUCKY, INCORPORATED
CUMBERLAND, HARLAN COUNTY, KENTUCKY

JANUARY 11, 1991

BY

JAMES W. POYNTER
COAL MINE SAFETY AND HEALTH INSPECTOR

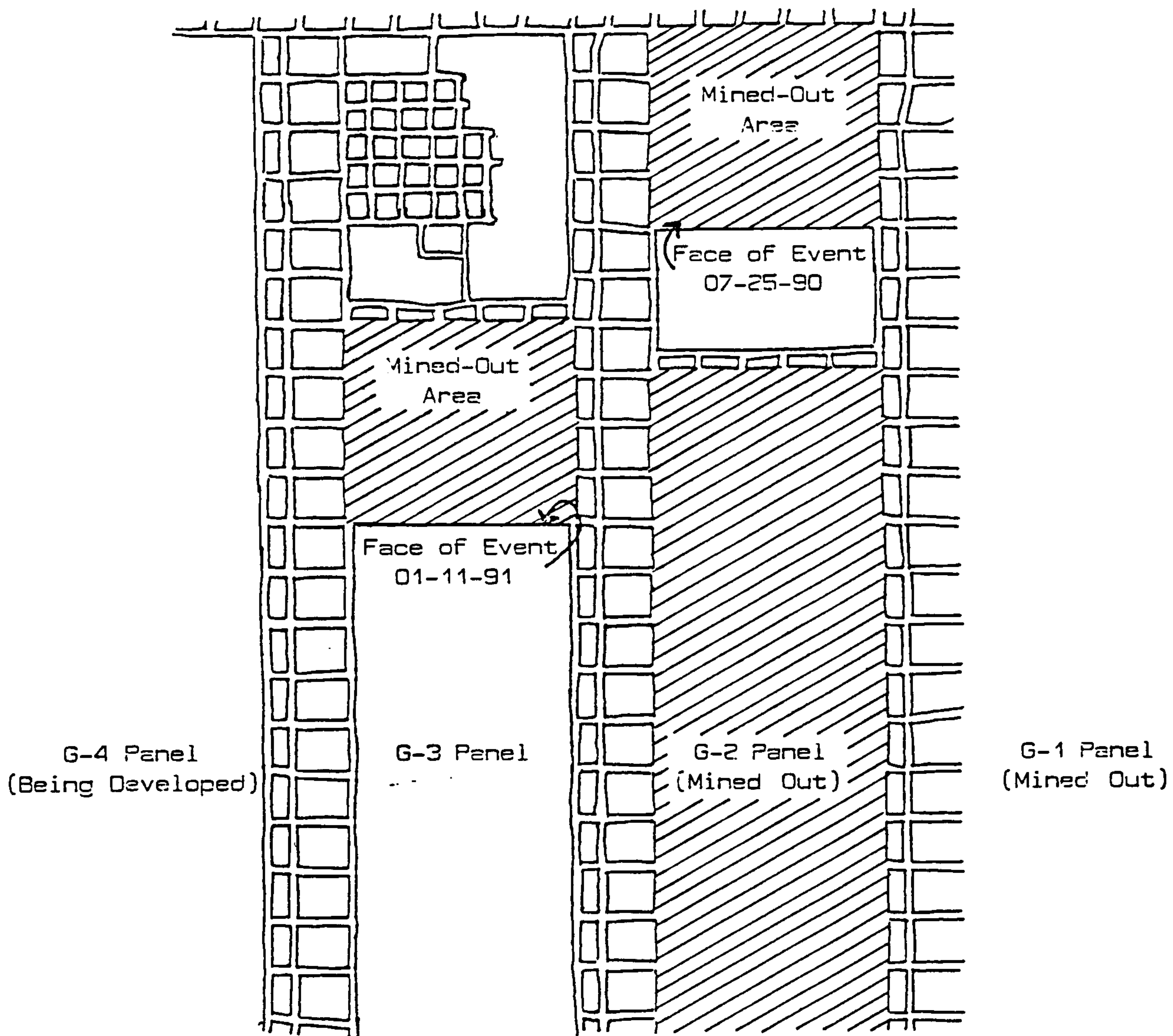
ORIGINATING OFFICE - MINE SAFETY AND HEALTH ADMINISTRATION
HC 66, BOX 1762, BARBOURVILLE, KENTUCKY 40906
JOSEPH J. GARCIA, DISTRICT MANAGER

REPORT OF INVESTIGATION
(UNDERGROUND COAL MINE)

NON-FATAL COAL OUTBURST ACCIDENT
NO. 37 MINE (I.D. NO. 15-04670)
ARCH OF KENTUCKY, INCORPORATED

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MULTIPLE NONFATAL INJURY COAL OUTBURST ACCIDENT
 NO. 37 MINE (I.D. NO. 15-04670)
 ARCH OF KENTUCKY, INCORPORATED
 CUMBERLAND, HARLAN COUNTY, KENTUCKY
 JANUARY 11, 1991

Scale: 1" = 500'

Abstract of Investigation

U.S. Department of Labor

Mine Safety and Health Administration

AUTHORITY - This report is based on an investigation made pursuant to the Federal Mine Safety and Health Act of 1977,
Public Law 91-173, as amended by Public Law 95-164.

Section A - Identification Data

1. Title of Investigation: Nonfatal Coal Outburst (Multiple)	2. Date MSHA investigation started: 01/11/91
3. Report release date: 3/11/91	4. Mine: No. 37
5. Mine ID number: 15-04670	6. Company: Arch of Kentucky, Inc.
7. Town, County, State: Cumberland, Harlan County, Kentucky	8. Author(s): James W. Poynter, Daniel Johnson

Section B - Mine Information

9. Daily production: 15000	10. Surface employment: 23
11. Underground employment: 282	12. Name of coalbed: Harlan
13. Thickness of coalbed: 120 inches	

Section C - Last Quarter Injury Frequency Rate (HSAC) for:

14. Industry: 12.31	15. This operation: 7.78
16. Training program approved: 11/28/90	17. Mine Profile Rating: N/A

Section D - Originating Office

18. Mine Safety and Health Administration Coal Mine Health and Safety District No. : 7	Address: HC 66, Box 1762, Barbourville, Kentucky 40906
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Section E - Abstract

On Friday, January 11, 1991, an outburst occurred on the G-3 Longwall (004) section, at approximately 9:33 a.m. The outburst resulted in injuries to four (4) persons. John Lozier, Section Foreman, receiving the most serious injuries, was transported to the Lynch Clinic, Lynch, KY, then transported to the Harlan Appalachian Regional Hospital (ARH), Harlan, Kentucky. Lozier was then transported to the University of Kentucky Chandler Medical Center, for further treatment. Cecil Foutch, Propman; Clark Williams, Shearer Operator and James Talbott, Shearer Operator, were taken to the Lynch Clinic and then to the Harlan ARH. Talbott remained overnight for observation. Foutch and Williams were treated and released. It was the consensus of the investigating committee that the outburst was due to critical stresses induced on the longwall face by overriding abutment stresses from an adjacent mined-out panel and stresses from a barrier pillar left in an idled mine, directly above the affected area.

Section F - Mine Organization

Company officials:	Name	Address
19. President:	Tom Sawarynski	P.O. Box 787, Lynch, KY 40855
20. Superintendent:	Kenneth R. McCoy	P.O. Box 787, Lynch, KY 40855
21. Safety Director:	Philip Bailie	P.O. Box 787, Lynch, KY 40855
22. Principle officer - H&S:	Richard Painter	P.O. Box 787, Lynch, KY 40855
23. Labor Organization:	UMWA Local 7425	

TABLE OF CONTENTS

	<u>PAGE</u>
General Information.....	1
Description of Accident.....	2
Physical Factors Involved.....	4
Conclusion.....	9
Violations.....	9
Signatures.....	10
Appendix.....	11

Data Sheet #1
Data Sheet #2
Data Sheet #3
Data Sheet #4
Longwall Section Drawing 1
Longwall Section Drawing 2
Detailed View of Accident Site - Drawing 3
Detail A - Drawing 4
Contours of Sandstone Strata and Overlying
Kelioka Seam Mine - Drawing 5

GENERAL INFORMATION

The No. 37 Mine of Arch of Kentucky, Incorporated is located one mile south of U.S. 119 on Cloverlick Road, Cumberland, Harlan County, Kentucky. The mine began operation on or about August, 1973. Fourteen (14) drift openings were developed in the Harlan coal seam in Black Mountain. The mine produces coal four shifts per day, five days per week, with two-hundred-sixty-two underground employees and forty-two surface employees.

The mine is a multi-unit mine with two advancing units and one longwall unit in production at this time. The advancing units utilize three to four entry systems with Joy 12CM remote control Continuous Miners, Joy 10SC shuttle cars, Fletcher roof bolting machines and S&S battery-powered scoops. The longwall utilizes a Mitsui Trojan 700 shearer, one-hundred-twenty-four Gullick-Dobson two support-leg shields, and a Halbach-Braun stage loader automatic face conveyor system across a six-hundred foot coal face. All units utilize belt conveyor coal haulage systems. Track haulage is used for mantrip and supply via battery and/or diesel-powered vehicles. The mine has a daily production of fifteen-thousand tons.

Principal Mine Officials are:

Tom J. Sawarynski	President
Richard L. Painter	Mine Manager, No. 37 Mine
Kenneth R. McCoy	Superintendent of Operations
Phillip Bailie	Manager of Safety and Employee Development

The Roof Control Plan, approved June 20, 1988, provides for full overhead support in all roof spans. The maximum entry width is twenty feet, with twenty-five foot widths for a longwall set-up room. Entries, crosscuts and rooms are developed with a minimum center distance of fifty feet. Rods, fully grouted with polyester resin are used on advancing sections. The minimum length of rods is thirty-six inches with installation on forty-eight inch and sixty-inch centers. Tensioned rebar combination bolts, with twenty-four inches minimum grouting, having a minimum length of forty-eight inches, installed on forty-eight and sixty-inch centers are also approved for use. The retreating longwall has full overhead support utilizing two-leg hydraulically powered "shields" with three-hundred-ninety-five tons yield capacity per leg. The shields are equipped with extensible plates for skin-to-skin protection on the roof beam and caving shield to provide immediate support behind the shearer.

A supplement to the Approved Roof Control Plan, dated September 4, 1990, addressed the operator's plan for destressing the longwall face by "volley-firing" with permissible explosive. An addendum to this supplement, dated September 6, 1990, addressed an alternative method of stress relief, hydraulic fracturing.

The last regular Health and Safety Inspection was completed on December 31, 1990.

DESCRIPTION OF ACCIDENT

At 7:30 a.m., Friday, January 11, 1991, the Longwall day shift crew entered the mine under the supervision of John Lozier, Section Foreman. The crew traveled, via a track-mounted diesel mantrip, to the G-3 (004-0) Longwall section. The crew arrived shortly after 8:00 a.m. and changed out at the face with the third shift crew. The third shift had hydraulically fractured three (3) holes and completed one step-cut pass with the shearer. The shearer was positioned on the tailgate end of the longwall face. Production was delayed due to problems with the main-line belt conveyors.

Production began at approximately 8:50 a.m. The shearer was trammed from the tailgate to the No. 80 shield and a cut was taken to the tailgate. After this cut, the shearer was trammed to the No. 60 shield and another cut was taken to the tailgate. This completed the third step-cut on the tailgate end of the longwall face.

Clark Williams, Shearer Operator, and Lozier discussed the firmness of the coal face. This condition was observed during the second cut taken. Firmness of the coal face was a good indicator of stress.

Lozier decided to have the shearer taken from the tailgate to the headgate and idled. The crew would then drill the 50 millimeters/2 inch holes into the coal face, at the tailgate end, to hydraulically fracture the coal and relieve the stress.

Williams and James Talbott, Shearer Operator, began tramping the shearer toward the headgate. The shearer was taken to the No. 95 Shield and stopped. The shearer was stopped to allow material which had spilled from the coal face to clear the lump breaker. When the shearer stopped, Cecil Foutch, Propman, was walking toward the tailgate to reposition the shields on the tail-drive side of the shearer. Lozier had remained in the tailgate area to assist Foutch.

Lozier observed a section of steel pipe in the conveyor pan, which had been dislodged from the coal face during the last cut-out pass at the tailgate. The pipe was previously installed by a contractor, to be used in fracturing the coal in advance of the longwall face. Lozier immediately shut down the face conveyor. ~~X~~ Lozier traveled to the No. 110 Shield, to grasp an exposed end of the steel pipe. At this time, approximately 9:33 a.m., an outburst occurred. ~~X~~ Lozier was forced backward by the concussion. Lozier came to rest between the No. 109 and 110 Shields, completely covered by approximately twenty (20) to twenty-four (24) inches of material.

Foutch was positioned at or near the No. 105 Shield when the outburst occurred. Foutch was also forced backward by the concussion and came to rest between the No. 105 and 106 Shields. Foutch was also covered by material and a piece of shale brow, which measured five (5) feet long, two (2) feet wide and sixteen and one-half (16 1/2) inches thick.

Williams was positioned in the walkway, alongside the shearer, at the No. 98 Shield. Williams was knocked to the mine floor by the concussion of the outburst, and was struck on his legs by the Bretby cable carrier when it came out of the guide trough.

Talbott was positioned at the No. 90 Shield when the accident occurred. Talbott was struck by small pieces of expelled material. Roger Ellis, Mechanic, was positioned at the No. 89 Shield, but received no injuries.

Immediately following the outburst, the atmosphere of the area was filled with dust, with little or no visibility. Talbott (injured) traveled toward the tailgate, calling out for persons inby. Ellis traveled toward the headgate for assistance. Talbott found Williams (injured), lying in the walkway, beside the shearer. Williams told Talbott he thought he was alright and Talbott continued in search of the two (2) missing persons.

Talbott traveled to the No. 107 Shield but was unable to locate either person. Talbott then heard Lozier (injured) calling for help. Talbott returned to a phone and called for assistance. Bill Miller, Headgate Cornerman, answered the call. Talbott then returned to Williams.

Bill Kellerman, Propman, was positioned nearer the headgate than Talbott and Ellis. After the outburst Kellerman also traveled toward the tailgate. Kellerman, Talbott and Williams began another search. Visibility had improved and Kellerman located Foutch between the Nos. 105 and 106 Shields. Foutch was conscious, but unable to move, due to the material which covered him. Kellerman began removing the material. Talbott and Williams continued searching for Lozier. They could not see him but were able to locate him through continual voice contact.

Larry Boggs, Longwall Maintenance Foreman, and Ben Rhymer, Longwall Construction Foreman, were near the headgate. They heard the outburst and felt the concussion. Boggs and Rhymer traveled to the stageloader and were informed of the missing persons by Miller. Miller and Rhymer traveled toward the affected area and Boggs called Don Hendrickson, Longwall Coordinator. Boggs then proceeded toward the tailgate. Upon arrival, Boggs assisted in removing Lozier, as he appeared to be the most seriously injured.

After being extricated, Lozier was placed on a Stokes litter/stretchers. First aid was administered by Rhymer and Harvey Thomas, Belt Mechanic, both Emergency Medical Technicians. Thomas was at the G-3 section belt drive when the outburst occurred and traveled to the section to assist.

A one-ton capacity chain hoist was obtained and used to lift the section of brow material from Foutch. Foutch was then lifted from between the shields and examined by the EMT's. The injured persons were taken to the mantrip vehicle at the end of the track. Lozier was transported on the stretcher and Foutch, Talbott and Williams were able to walk.

Hendrickson, traveling from the surface, arrived at the end of the track at the same time as the injured persons. The injured were placed in the diesel vehicle Hendrickson had used and were transported to the surface. Upon reaching the surface, the injured persons were attended by Dr. Kenneth Wier. The injured were then transported to the Lynch Clinic, Lynch, Kentucky. After being stabilized, they were transported to the Harlan Appalachian Regional Hospital for further examination. Lozier was then transported to the University of Kentucky Chandler Medical Center, Lexington, KY, for further treatment of facial fractures and fractured ribs. Foutch was treated for abrasions and contusions and was released. Talbott and Williams were treated for shock. Williams was treated and released and Talbott remained overnight for observation.

PHYSICAL FACTORS INVOLVED

The investigation revealed the following factors relevant to the occurrence of the accident:

1. The mine is located in the Harlan coal seam, one and one-half miles south of Cumberland, Harlan County, Kentucky. The immediate roof, throughout the mine, normally consists of ten (10) feet or more siltstone and shale. The main roof consists of ten feet or more sandstone.
2. The immediate roof in the affected area was sixteen (16) inches of shale. The main roof was thirty (30) feet of sandstone.
3. The total amount of overburden at the affected area was one-thousand and eight-hundred (1,800) feet.

4. The headgate and tailgate entries, for the affected panel, were developed as three-entry systems with one-hundred sixty (160) feet centers, for the abutment pillars, and seventy (70) feet centers for the yield pillars. The crosscuts were developed on one-hundred forty (140) feet centers.
5. The affected area of the G-3 Longwall panel underlies an idled mine in the Kelioka seam. The average vertical distance, between the two mines, is one-hundred sixty (160) feet. The area involved in the outburst, according to mine maps supplied by the operator, underlies the west side of a three hundred (300) feet wide barrier, left between two worked-out panels. (See Drawing 5)
6. Coal is extracted from the longwall face by a Mitsui Trojan 700 twin drum ripper-type shearer. The ripper drums cut a one (1) meter/thirty-nine (39) inch web. The coal is transported across the six-hundred (600) feet coal face by a Halbach-Braun conveyor pan-line.
7. The roof is supported, across the face, by one-hundred twenty-four (124) Gullick Dobson two-leg shields with three-hundred ninety-five (395) U.S. tons per leg yield capacity.
8. Holes, fifty (50) millimeters/two (2) inches in diameter, were drilled from seventy (70) to one-hundred fifty (150) feet in depth, on one-hundred forty (140) feet centers. These holes were drilled into the tailgate side of the longwall panel, parallel to the longwall face. Each of these holes was pressurized when the coal face had advanced to within thirty (30) feet of the hole.

Note: All hydro-fracturing holes, stated in this report, were pressurized with water at approximately four-thousand seven-hundred (4,700) pounds per square inch/three-hundred twenty (320) bar, maximum, by a high pressure piston pump. This high pressure infusion was induced to fracture the coal in advance of the longwall face.

9. According to statements, a hydraulic fracturing hole had been drilled to a depth of one-hundred eighteen (118) feet into the tailgate side of the longwall panel, and parallel to the longwall face. This hole was pressurized when the coal face approached to within

fifty (50) feet of the hole. This hole apparently failed to fracture the coal and was subsequently disconnected.

This hydro-fracturing hole was evidenced in the coal face, as it had been bisected by the shearer drum during the final cut made in the tailgate area.

10. On September 10, 1990, the operator received approval from the District Manager to an addendum to the approved Roof Control Plan. This addendum was for the implementation of an alternative method of hydraulic fracturing to destress the coal face. This method was adopted and utilized, according to statements, whenever stress was encountered.

Stress in the coal face was usually determined by two methods:

- (1) a general or localized firmness or hardening of the coal face, and/or
- (2) test drilling into the coal face, using a Turmag drill with five (5) feet sections of auger steel and fifty (50) millimeter, two (2) inch auger bits. Test holes were drilled until excessive "fines" were produced during drilling or the coal seemingly "grasped" the auger.

11. The operator's record of hydraulic fracturing holes for the third shift, January 11, 1991, indicated that three (3) holes, from sixteen (16) to eighteen (18) feet in depth were drilled and pressurized, sequentially, at the Nos. 96, 107 and 117 Shields. The depth of the holes was the result of encountered stress. The record also indicated that an event occurred when the hole drilled at the No. 107 Shield had been pressurized for seven (7) minutes. This occurrence filled the conveyor with material from the No. 94 to the No. 116 Shields.

12. The only notable indication of stress or imminence of a bounce, bump or outburst, witnessed by persons present, was a generalized "firmness" or "hardening" of the coal in the tailgate region of the longwall face. No abnormal sounds of coal or roof activity was reported by the witnesses.

13. After hydro-fracturing at approximately 4:30 a.m. on Jan. 11, 1991, the third shift made one (1) step-cut in the tailgate area. The day shift made two (2) additional step-cuts before the outburst occurred. The

face position, at the tailgate, prior to the first step-cut was five-hundred thirty-seven (537) feet from the set-up face. The final position, after the last step-cut was five-hundred forty-six (546) feet from the set-up face. A total advance in the tailgate region of 3 meters/9 feet (apprx.). The face position at the headgate was five-hundred thirty-two (532) feet from the set-up face. These measurements position the tailgate in relation to the headgate as follows: prior to step-cuts - five (5) feet in advance, following step-cuts - fourteen (14) feet in advance.

14. The step-cuts, in the tailgate region, were being taken in order to "catch" the sixteen and one-half (16 1/2) inches of shale brow, which had been breaking as the shearer cut the coal, and to straighten the pan-line.
15. The shearer was idled, the face conveyor stopped and no face supports were being advanced when the accident occurred.
16. Cecil Foutch, Propman; John Lozier, Section Foreman; James Talbott, Shearer Operator and Clark Williams, Shearer Operator, were injured by the concussive forces and expelled material during the outburst. Lozier, the more seriously injured, was transported to the Lynch Clinic, Lynch, Kentucky. Lozier was then transferred to the Harlan Appalachian Regional Hospital (ARH), Harlan, Kentucky. After being stabilized, Lozier was transported to the University of Kentucky Chandler Medical Center, Lexington, Kentucky. There, Lozier was treated for facial fractures and fractured ribs. The other injured persons were also transported to the Lynch Clinic and then to the Harlan ARH. Foutch was treated for abrasions and contusions. Talbott and Williams were treated for shock. Talbott remained overnight for observation. Foutch and Williams were treated and were released.
17. Approximately one-hundred fifty (150) U.S. tons of material was dislodged and/or expelled from the coal face. In addition, approximately twenty (20) U.S. tons of shale roof material was broken and expelled during the outburst. The material filled the walkway and the face conveyor pan-line, level with the conveyor pan spill place, and sloped upward to the mine roof. The area affected by this accumulation was from the Nos. 103 to 113 Shields. The face conveyor pan line was also filled with material from the Nos. 87 to 94 Shields.

18. The face support advance rams on the Nos. 98, 99, 100, 101 and 102 shields were damaged due to the sudden lateral movement of the face conveyor pan-line. No other physical damage to the face equipment was reported.
19. Two (2) persons from the U.S. Bureau of Mines, Denver Research Center, were present in the tailgate (crib) entry, at the No. 20 crosscut, when the outburst occurred. These persons were repairing micro-seismic geophone cables. Neither person was injured and no physical damage, attributed to the event, was observed in the area. The persons were located approximately five-hundred sixty (560) feet outby the longwall face.
20. An examination of the G-3 tailgate entries, outby the longwall face, was made during the investigation. The examination revealed indications of excessive pressure and lateral movement of the mine roof. The excessive abutment pressure resulted in the failure of the abutment pillar between the Nos. 19 and 20 crosscuts. (See Drawing 4)
21. According to the Kentucky Geologic Survey, University of Kentucky, Lexington, Kentucky, this event registered 2.2 on the Richter scale. The occurrence noted on November 8, 1990, consisted of two (2) events, registering 2.6 and 3.2, respectively.
22. Four (4) reportable outburst events have previously occurred on the retreating longwall section at this mine. All of these occurrences involved the tailgate region of the face. The following is a list of these events:
 - a) April 12, 1989; 11:24 a.m.; R-9 panel; 500 feet face; 105 feet of face involved; destressing - none.
 - b) May 8, 1989; 4:15 a.m.; R-9 panel; 500 feet face; 95 feet of face involved; destressing - none.
 - c) November 22, 1989; 10:45 a.m.; R-3 panel; 500 feet face; 160 feet of face involved; destressing - volley firing
 - d) July 25, 1990; 12:23 p.m.; G-2 panel; 600 feet face; 190 feet of face involved; destressing - hydro-fracturing tailgate, cut and idle to allow face to crush.
23. After this occurrence, the longwall section was relocated to an area where more favorable geologic conditions were present.

CONCLUSION

It is the consensus of the investigation team that the accident was the result of critical stresses induced on the tailgate end of the longwall face.

The following factors may have contributed to the cause of the accident:

The failure of the abutment pillar, between the Nos. 19 and 20 crosscuts, may have increased the abutment pressure.

The intersecting of the tailgate entries and the barrier block left in the Kelioka seam mine above, may have further increased the pressure.

The effective extent, depth and radius, of the hydraulically-fractured face area may have been restricted by the previously pressurized tailgate-side hole. This may have prevented the foreman and the shearer operators from making accurate observations as to the extent and severity of the stress on the longwall face.

VIOLATIONS

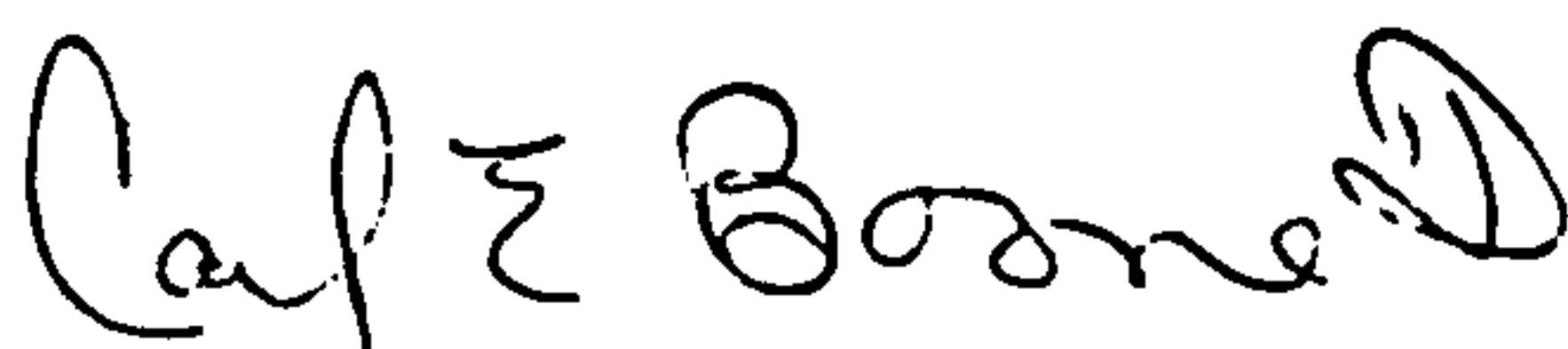
1. A 103-K Order was issued to insure the safety of all persons on the 004 Longwall section until a complete investigation of the area had been conducted and the safety of the area established.
2. A 107-A Imminent Danger, Order of Withdrawal, was issued to insure the safety of all persons in the area and to cease production in the area until a plan was formulated, submitted to and approved by the District Manager for the control of coal or rock bursts.

Respectfully Submitted,



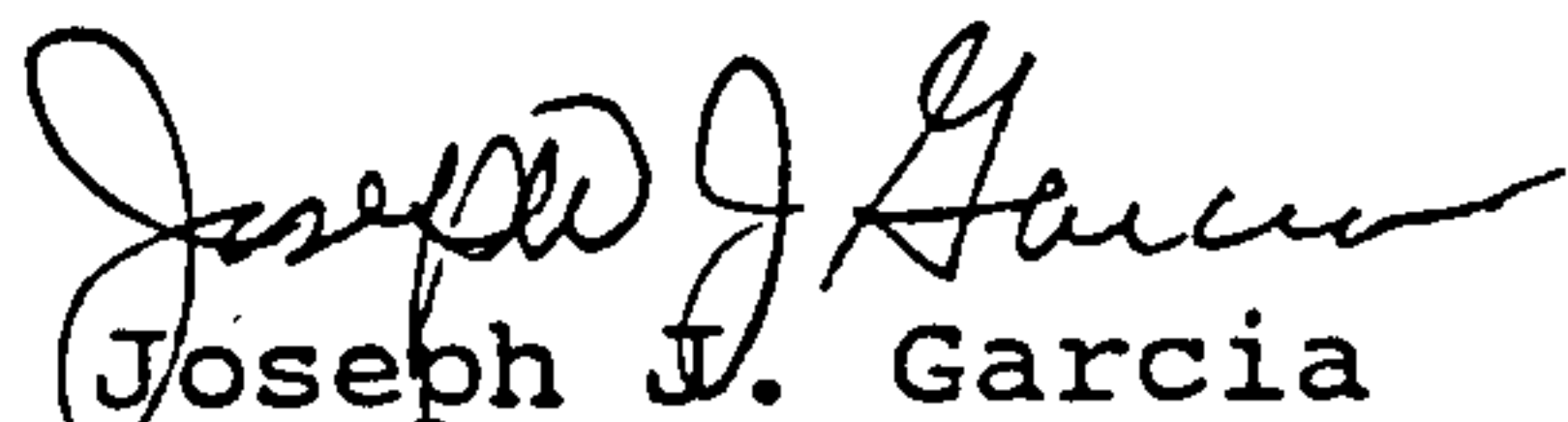
James W. Poynter
Coal Mine Safety & Health Inspector

Approved by:



Carl E. Boone, II
Subdistrict Manager

and



Joseph J. Garcia
District Manager

APPENDIX

List of persons furnishing information and/or present during the investigation:

Arch of Kentucky, Incorporated

Rich Painter	Mine Manager, No. 37 Mine
Kenneth McCoy	Superintendent of Operations
Phillip Bailie	Manager of Safety and Employee Development
Don Hendrickson	Longwall Coordinator
Larry Boggs	Longwall Maintenance Foreman
Rick Damron	Chief Electrician
John Lozier	Longwall Section Foreman
George Knight	Manager Human Resources

United Mine Workers of America

Leonard Fleming	UMWA Representative
Robert Phillips	UMWA Safety Department
Bob Clay	Chairman-Health & Safety Committee
Cecil Foutch	Propman
James Talbott	Shearer Operator
Clark Williams	Shearer Operator
Bill Miller	Headgate Cornerman

Kentucky Department of Mines and Minerals

Dewey Middleton	District Supervisor
David Disney	Mine Inspector
Ronnie Hampton	Mine Inspector

Mine Safety and Health Administration

James Poynter	Coal Mine Inspector
Daniel Johnson	Coal Mine Inspector
Gary Harris	Roof Control Specialist



Section A—Victim Data

1. Name	2. Sex	3. Social Security Number
John Lozier	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	234-92-0237
4. Age	5. Job Classification	
33	Section Foreman	
6. Experience at this Classification	7. Total Mining Experience	
9 months	12 years	
8. What activity was being performed at time of accident?	9. Victim's Experience at this Activity	10. Was victim trained in this task?
Performing duties as foreman	7 years	Yes

Section B—Victim Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
11. Annual Refresher Training	06/06/90
12.	
13.	
14.	

Section C—Supervisor Data (supervisor of victim)

15. Name	16. Certified
	<input type="checkbox"/> Yes <input type="checkbox"/> No
17. Experience as Supervisor	18. Total Mining Experience

Section D—Supervisor Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
19.	
20.	
21.	
22.	

23. When was the supervisor last present at accident scene prior to the accident?	24. What did he do when he was there?
Present	

25. When was he last in contact with the victim?	26. Did he issue instructions relative to the accident?
N/A	N/A
27. Was he aware of or did he express an awareness of any unsafe practice or condition?	
No	

Data Sheet

U.S. Department of Labor
Mine Safety and Health Administration

Section A—Victim Data

1. Name	2. Sex	3. Social Security Number
James E. Talbott	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	229-72-4263
4. Age	5. Job Classification	
39	Shearer Operator	
6. Experience at this Classification	7. Total Mining Experience	
1½ years	19½ years	
8. What activity was being performed at time of accident?	9. Victim's Experience at this Activity	10. Was victim trained in this task?
Operating shearer	4 years	Yes

Section B—Victim Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
11. Annual Refresher Training	09/29/90
12.	
13.	
14.	

Section C—Supervisor Data (Supervisor of victim)

15. Name	16. Certified
John Lozier	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
17. Experience as Supervisor	18. Total Mining Experience
7 years	12 years

Section D—Supervisor Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
19. Annual Refresher Training	06/06/90
20.	
21.	
22.	

23. When was the supervisor last present at accident scene prior to the accident?

Present at time of accident

24. What did he do when he was there?

Performing duties as Section Foreman

25. When was he last in contact with the victim?

Approximately 10 minutes prior

26. Did he issue instructions relative to the accident?

No

27. Was he aware of or did he express an awareness of any unsafe practice or condition?

No

Data Sheet

U.S. Department of Labor
Mine Safety and Health Administration

Section A—Victim Data

1. Name	2. Sex	3. Social Security Number
Clark Williams	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	403-82-7549
4. Age	5. Job Classification	
36	Shearer Operator	
6. Experience at this Classification	7. Total Mining Experience	
9 years	16 years	
8. What activity was being performed at time of accident?	9. Victim's Experience at this Activity	10. Was victim trained in this task?
Shearer Operator	9 years	Yes

Section B—Victim Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
11. Annual Refresher Training	08/18/90
12.	
13.	
14.	

Section C—Supervisor Data (supervisor of victim)

15. Name	16. Certified
John Lozier	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
17. Experience as Supervisor	18. Total Mining Experience
7 years	12 years

Section D—Supervisor Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
19. Annual Refresher Training	06/06/90
20.	
21.	
22.	

23. When was the supervisor last present at accident scene prior to the accident?

Present at time of accident

24. What did he do when he was there?

Performing duties as Section Foreman

25. When was he last in contact with the victim?

Approximately 5 minutes prior

26. Did he issue instructions relative to the accident?

No

27. Was he aware of or did he express an awareness of any unsafe practice or condition?

No



Section A—Victim Data

1. Name	2. Sex	3. Social Security Number
Cecil Foutch	<input checked="" type="checkbox"/> Male <input type="checkbox"/> Female	401-80-3195
4. Age	5. Job Classification	
37	Propman	
6. Experience at this Classification	7. Total Mining Experience	
3 years	16 years	
8. What activity was being performed at time of accident?	9. Victim's Experience at this Activity	10. Was victim trained in this task?
Advancing face support shields	3 years	Yes

Section B—Victim Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
11. Annual Refresher Training	09/29/90
12.	
13.	
14.	

Section C—Supervisor Data (Supervisor of victim)

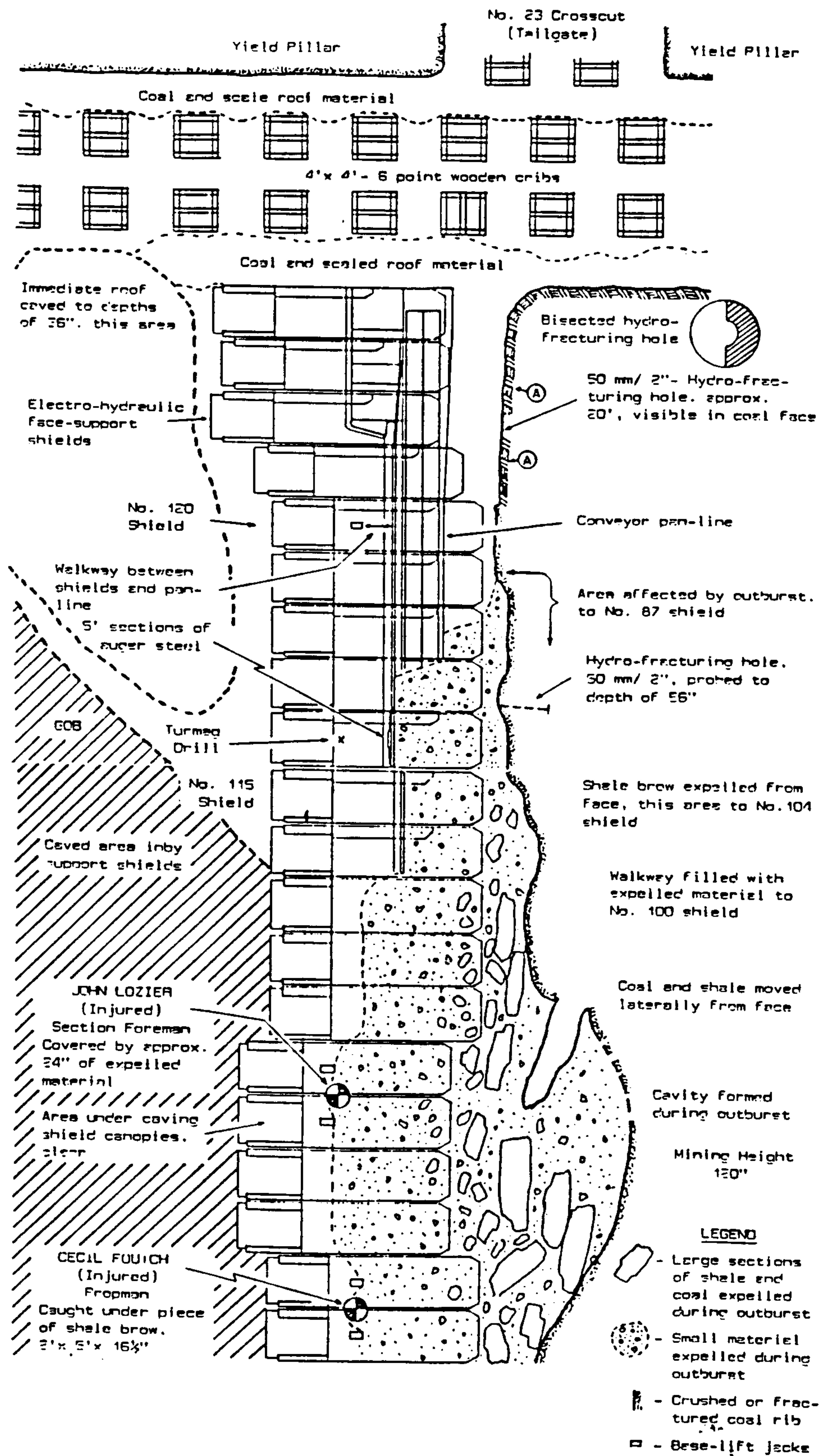
15. Name	16. Certified
John Lozier	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
17. Experience as Supervisor	18. Total Mining Experience
7 years	12 years

Section D—Supervisor Data for Health and Safety Courses/Training Received (related to accident)

	Date Received
19. Annual Refresher Training	06/06/90
20.	
21.	
22.	

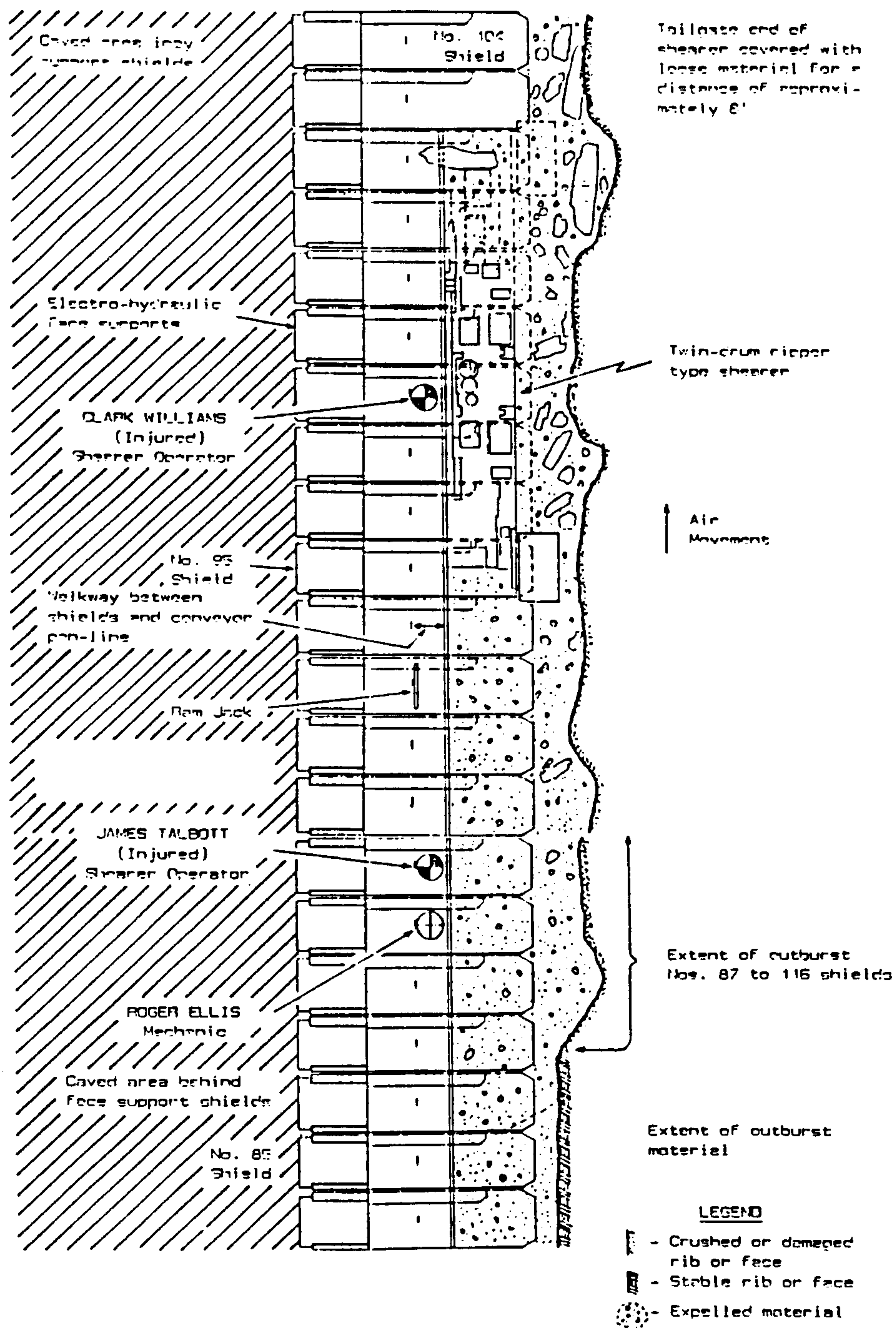
23. When was the supervisor last present at accident scene prior to the accident? Present at time of accident	24. What did he do when he was there? Performing duties as Section Foreman
--	---

25. When was he last in contact with the victim? Immediately prior to accident	26. Did he issue instructions relative to the accident? No
27. Was he aware of or did he express an awareness of any unsafe practice or condition? No	



Drawing 1

MULTIPLE NONFATAL INJURY COAL OUTBURST ACCIDENT
 NO. 27 MINE (I.D. NO. 15-04670)
 ARCH OF KENTUCKY, INCORPORATED
 CUMBERLAND, HARLAN COUNTY, KENTUCKY
 JANUARY 11, 1991



Drawing 2

MULTIPLE NONFATAL INJURY COAL OUTBURST ACCIDENT
NO. 37 MINE (I.D. NO. 15-04670)
ANCH OF KENTUCKY, INCORPORATED
CUMBERLAND, HANLAN COUNTY, KENTUCKY
JANUARY 11, 1991

JOHN LOZIER
Approximate location
and position when res-
cued. covered by approx-
imately 24" of
expelled material

Electro-hydraulic
face support
shields
(2 x 780 U.S. Tons)

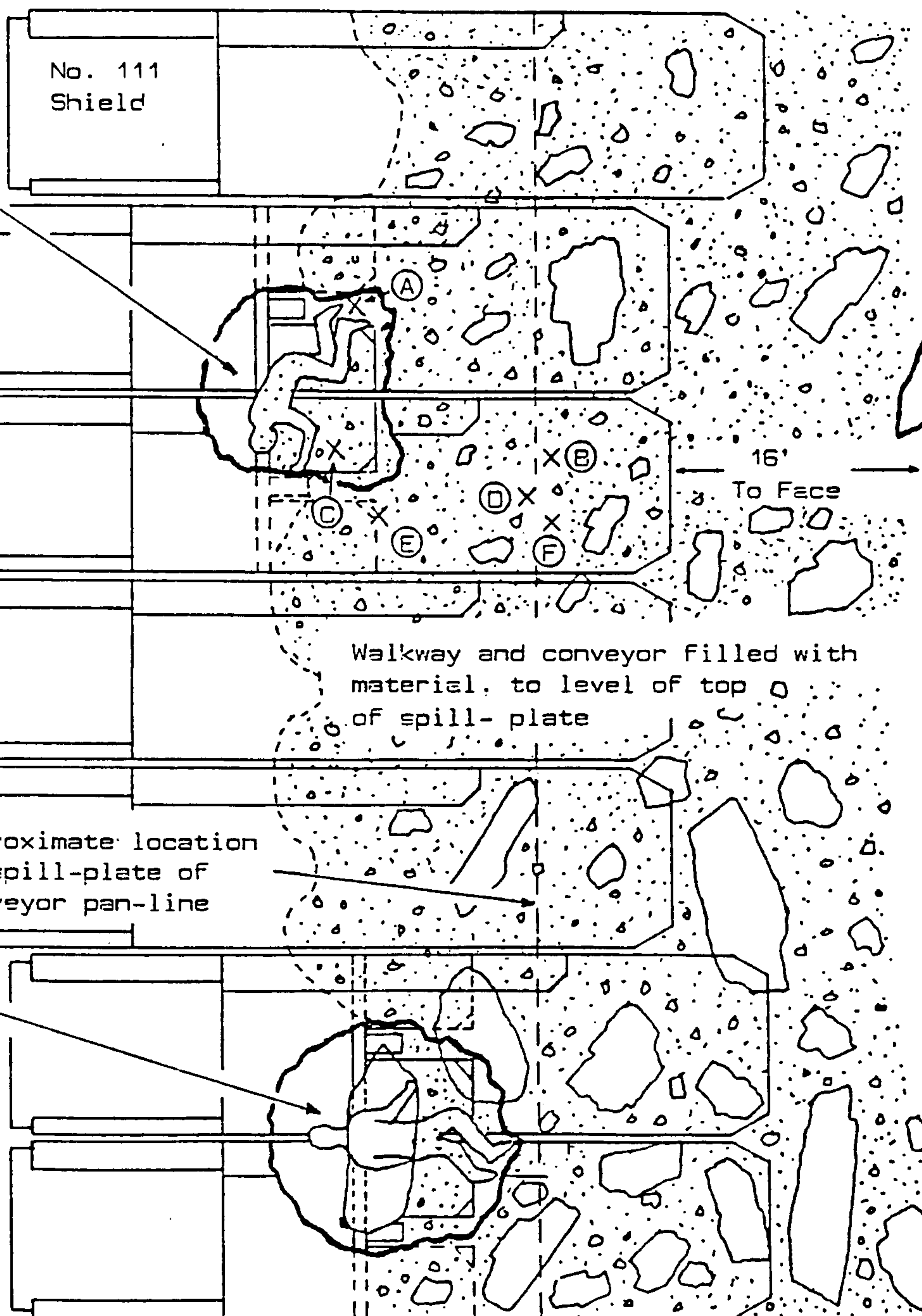
Mining Height
120"

Approximate location
of spill-plate of
conveyor pan-line

CECIL FOUTCH
Approximate location
and position when
rescued, 2'x 5'x 16½"
section of shale brow
came to rest across
injured.

LEGEND

- (A) - Cap-lamp headpiece
with 16" cord
- (B) - Battery with 13" cord
- (C) - Battery light cord, 16"
- (D) - Pieces of facspiece of Airstream
helmet
- (E) - Filter cover from helmet
- (F) - Airstream helmet
- (G) - Expelled material

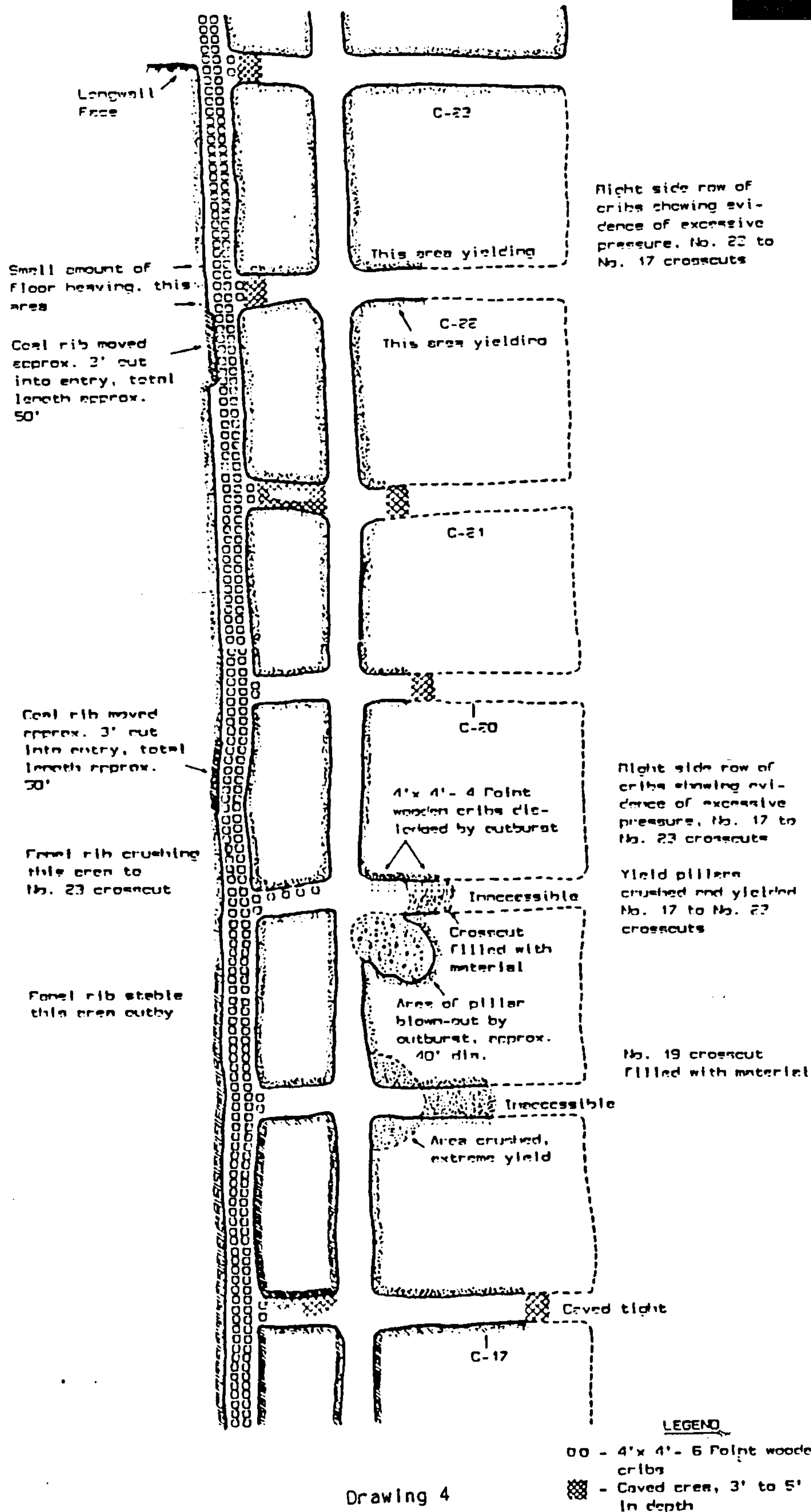


Drawing 3

Detailed View of Accident Site

MULTIPLE NONFATAL INJURY COAL OUTBURST ACCIDENT
NO. 37 MINE (I.D. NO. 15-04670)
ARCH OF KENTUCKY, INCORPORATED
CUMBERLAND, HARLAN COUNTY, KENTUCKY
JANUARY 11, 1991

Scale: 1" = 5'



Drawing 4

Detail A

Intelligent Entries G-3 Longwall Panel

MULTIPLE FATAL INJURY COAL OUTBURST ACCIDENT

NO. 27 MINE (I.D. NO. 15-04670)

MINE OF KENTUCKY, INCORPORATED

CORDELETT, HANCOCK COUNTY, KENTUCKY

JANUARY 11, 1991